

#10/C 38
12/13/02

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DATE: December 9, 2002

TO: Examiner Chunduru

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FROM: Carole Rasmussen on behalf of Heidi S. Nebel

NUMBER OF PAGES (Including cover): 14

COMMENTS:

09/780,762

Please see the attached amendment and Auto-Reply.

Thank you,

Heidi S. Nebel

HSN/cr

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Page 001

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Facsimile Cover Sheet

To: TECHNOLOGY CENTER 1600
Company: Patent and Trademark Office
Phone:
Fax: 703-872-9308

From: Matthew M. Catlett
Company: MCKEE, VOORHEES & SEASE
Phone: 515-288-3887
Fax: 515-282-6778

Date: March 21, 2002
Pages Including this
cover page:
13

Comments: Amendment attached for:

Re: U. S. Serial No. 09/780,768
Filed: February 9, 2001
Title: METHOD FOR AMPLIFYING FULL LENGTH
SINGLE STRAND POLYNUCLEOTIDE SEQUENCES
Inventor: Connor et al.
Our No. P04884US2

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Reply to Fax - 5152881338 or 7038729308 (515) 282-6778 (MCKEE VOORHEES & SEASE)

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT : CONNOR *et al.*
SERIAL NO : 09/780,762
FILED : February 9, 2001
TITLE : **METHOD FOR AMPLIFYING FULL LENGTH SINGLE
STRAND POLYNUCLEOTIDE SEQUENCES**

Grp./A.U. : 1656
Examiner : Chunduru, S.
Conf. No. : 6610
Docket No. : P04864US2

AMENDMENT AND RESPONSE

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

The amendments and remarks below are provided in response to the non-final Office

Action dated January 8, 2002 (*PTO Paper No. 8*).

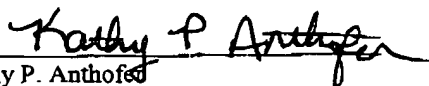
AMENDMENTIn the Specification

Please replace the paragraph beginning at page 3, line 8, with the following paragraph:

C1 --It is an object of the present invention to provide a method for amplifying cDNA by
providing circularized first strand cDNA as template.--

CERTIFICATE OF FACSIMILE TRANSMISSION (37 C.F.R. § 1.6(a)(3))

I hereby certify that this document and the documents referred to as enclosed therein are being transmitted
via facsimile to: Technology Center 1600 (Art Unit 1656) 703-872-9306, Attn: Assistant Commissioner for Patents,
Washington, D.C. 20231, on this 21st day of March, 2002


Kathy P. Anthofer

Please amend the paragraph beginning at page 10, line 10, as follows:

C2

Once the circular nucleic acid is formed, then a template extension amplification reaction is carried out with gene specific primers. The design of the first and second primers differs from that of traditional PCR of cDNA first in that using a single nucleic acid strand as template. The primers are instead designed so that each one has a 3' end of the primer which is toward either the 5' or 3' end of the polynucleotide. This means that the forward primer will typically be towards the 3' end of the molecule and the reverse primer will be towards the 5' end of the molecule. For example, if a known sequence comprises 5'-ATATATATGCGCGCGC-3' a forward primer would be 5'-CGCGCGCG-3' to hybridize with the 3' end of the molecule and the second or reverse primer would be 5'-ATATATAT-3' to hybridize with the 5' end of the molecule and having its 3' end towards the 5' of the target gene. See Figure 1. Design of primers for amplification and extension reactions are commonly known in the art of PCR amplification and the remainder of primer design is standard. A brief summary of oligonucleotide primer design is disclosed herein. In addition a discussion of primer design can be located in "Molecular biology Techniques Manual" third edition CRC Press, Editors, Coyne et al. In addition, there are a number of publically and commercially available computer programs to aid in design of primers including, BLAST, PrimerGen, Primer (Stanford), Amplify, Primer Design 1.04, PC-Rare, CODEHOP, Primer 3, and Net Primer (Premier Biosoft Int'l).

In the Claims

Please cancel claims 2, 18-20, 24, and 25.

Please amend claims 1, 6, 9-12, 15-17, 26 and 27 as follows:

1. (Amended)

A method for amplifying a cDNA comprising: